

Lycopersicon esculentum (tomato) RdRP¹ (cDNA by Wassenegger et al.)
Nicotiana tabacum RdRP¹ (cDNA by Wassenegger et al.)
Arabidopsis thaliana RdRP¹ (AC006917) = AJ011977 (Wassenegger et al.)

MGKTIQVFGFPYLLSAEVVKSFLEKYTG YGTVCAL EVKQS-KGGSRAFAKVQFADNISAD
MGKTIQVFGFPYLLSAEAVKKFLENHTGNGTVYALEVKQS-KGGRRAFAKVQFANNKSAE
MGKTIQVFGFPNGVSAEEVKKFLERLTGSGTVYAIKVRQPKKGGPRVYAI VQFTSERHTR

KIITLANNRLYFGSSYLKAWEMKTDIVQ-LRAYVDQMDGITLNFGCQISDDKFAVLGST-
FIIDLASKGLYYGPSYLKAWEMKTDIVQ-PRTYVEHMDGVTLNFGCQISDDKFAVLGSK-
LIITAAERLYYGRSYLKA FEVEQDIVPKPRASLHTISGLKMFFGCQVSTKKFLTLWSAQ

EVS IQFGIGLKKFFFLSSGSADYKLQLSYENIWQVVLHRPYGQNAQFLLIQ LFGAPRIY
DVSIKFGIGLKKIYFFLSHASADYKLQLSYENIWQVVLHRPYGQNAQFLLIQ LFGAPRIY
DVCVSFGIGMRKLHFSFSWYQKDYRL ELSYENIWQIDLHSPQGRSSKFLV IQVIGAPKIF

K-----RLENSCYSFFKETPDDQWVRTTDFPPS-WIGLSSSLCLQFRRGVRLPNFEESF
K-----RLEDSCYSFFKETPDDQWVRTTDFTPS-WIGLSSSLCLEFRNGVQLPNFSESF
EKEDQPINLLFGIMDFYSDGSEQWIRTTDFTSSCIGQSTAFCLELPVHLNVDPDFRENF

FHYAERENNITLQTGFTFFVSQKSALVPNVQPPEGISIPYKILFKISSLVQHGCIPGPAL
FYYKESMNQFILQTGFTFSFSQKLALVPIVHLPEGIELPYKILFKISSLIQHGCIPGLAL
ANYAEHRASSFLIESGSSYSNANTLVPVVDPPPGLSLPFEILFKLNTLVQNACLSPAL

NVYFFRLVDPRRRNVACIEHALEKLYYIKECCYDPVRWLTEQYDGYL-KGRQPPKSPSIT
NFNFQQLVDPRRRNIACIEHALEKLYYKECCYDPVRWLTEQYDEYL-KGRQLPKSPIT
DLDFYRLNQQKYDRALIDHCLEKLFHLECCYEPAHWLRDEYKKWISKGK-LPLSPTIS

LDDGLVYVRRVLVTPCKVYFCGPEVNVSNRVLNRNYSIEDIDNFLRVSFVDEEWEKLYSTDL
LDDGLVYVRRVVVTPCKVYFCGPEVNVSNRVLNRNYSIEDINNFLRVSFVDEEWEKIHS TDL
LDDGLVYMYRVQVTPARVYFSGPEVNVSNRVLRHYSKYINNFLRVSFVDEDELEKVRSMDL

LPKASTGSGVRTNIYERILSTLRKGFVIGDKKFEFLAFSSSQLRDNSVWMFASRPGLTAN
LPRASTGNGTRTDIYERILSTLRNGFIIGDKRFEFLAFSSSQLRDNSVWMFASRPGLTAN
SPRSSTQ--RRTKLYDRIYSVLRDGI VIGDKKFEFLAFSSSQLRNSAWMFAPIDRITAA

DRAWMGDFSQIKNVAKYAARLGQSFSSRETLSVLRHEIEVIPDVK--VHGTSYVFS DG
DIRTWMGDFRQIRNVAKYAARLGQSFSSRETLSVGRHEVEVIPDVACSLHGTNYIFSDG
HIRAWMGDFDHIRNVAKYAARLGQSFSSRET LNVRSEIEVIPDVEIISLGTRYVFS DG

IGKISGDFAHRVASKCGLQ-YTPSAFQIRYGGYKGVVGVDPDSSMKLSLRKSM SKYESDN
IGKISADFAHRVTIKCGLQ-YTPSSFQIRYGGYKGVVAVDPYSSMKLSLRKSM LKYESNN
IGKISAEFARKVARKCGLTEFSPSAFQIRYGGYKGVVAVDPNSSKLSLRKSM SKFESEN

IKLDVLGWSKYQPCYLNRLITLLSTLGVKDEVLEQKQKEAVDQLDAILHDSLKAQEAL E
IKLDVLGWSKYQPCYLNRLVTLLSTLGVIDDVLEQKQNEAVDQLDAILHDSLKAQEAL E
TKLDVLAWSKYQPCYMNRLITLLSTLGVTDSVF EKKQREVVDRLDAILTHPLEAHEALG

LMSPGENTNILKAMLNCGYKPD AEPFLSMMLQTFRASKLLDLRTRSRIFIPNGRTMMGCL
LMSPGENTNILKEMLNCGYMPDAEPFLSMMLQTFRASKLLDLRTRTRIFIPNGRTMMGCL
LMAPGENTNILKALILCGYKPD AEPFLSMMLQNFRASKLLELR TKTRIFISGGRSMMGCL

DESRTLEYGQVFVQFTGAGHGEFSDDLHPFNNSRSTNSNFIKGNVVVAKNPCLHPGDIR
DESRTLEYGQVFVQFSGAGRRQFF EESH PFNDSGSANCDFILKGNVVVAKNPCLHPGDIR
DET RTLEYGQVVVQYS-----DPMRPGRRFIITGPVVVAKNPCLHSGDVR

VLKAVNVRALHHMVDCVVFPPQKGKRPHPN ECSGSDLDGDIYFVCWDQDMI PPRQVQPM EY
VLRADV PALHHMVDCVVFPPQKGKRPHPN ECSGSDLDGDIYFVCWDQDLIPPRQVQSM DY
VLQAVNV PALNHMVDCVVFPPQGLRPHPN ECSGSDLDGDIYFVCWDQELVPPRTSE PMDY

PPAPSIQLDHDV TIEVEEYFTNYI VND SLGIIANAHVVFADREPDMAMSDPCKKLAE LF
TPAPTQLDHDV TIEVEEYFTNYI I NDSLGI IANAHVVFADREPDMAMSDPCKQLAQLF

TPEPTQILDHDVTIEEVEEYFANYIVNDSLGIIANAHTAFADKEPLKAFSDPCIELAKKF

SIAVDFPKTGVP AEIPSQLRPKEYPDFMDKPKDTSYISERVIGKLF RKVKDKAPQASSIA
SIAVDFPKTGVP AEIPSQLRPKEYPDFMEKPKDKPTYPSEK VIGKLFQKVKNKTPQASSIA
STAVDFPKTGVA AVIPQHLYVKEYPDFMEKPKDKPTYESKNVIGKLFREVKERAPPLISIK

TFTRDVARRSYDADMEVDGFE DYIDEAFDYKTEYDNKLG NLM DYYGIKTEAEILSGGIMK
TFTRDVARKSYDS DMIVDGFEDYIDEAFY YKSEYDNKLG NLM DYYGIKTEAEILSGGIMK
SFTLDVASKSYDKDMEVDGFE EYVDEAFYQKANYDFKLGNLMDYYGIKTEAEILSGGIMR

ASK-TFDRRKDAE AISVAVRALRKEARAWFKRRNDIDDMLPKASAWYHV TYHPTYWGCYN
ASK-TFDRRKDAE AIGVAVRCLRKEARAWFKRRSDIDDMLAKASAWYHV TYHH TYWGLYN
MSKSFTKRR-DAESIGRAVRALRKETLSLFNASEEEENESAKASAWYHV TYHSSYWGLYN

QGLKRAHFISFPWC VYDQLIQIKKDKARNRPVLNLSSLRAQLSHRLVLK
EGLKRDHFISFPWC VYDQLIQIKKAKARKRPVPHLSSLGSQLSRKLVIW
EGLNRDHFLSFAWC VYDKLVRIKKTNLGRRQRQETLERLDHVLRF

Alignment of the tomato RdRP1 amino acid (1114 AA) sequence with the tobacco RdRP1 amino acid (1116 AA) sequence:
85,8% Identity and 92,4% Similarity

Alignment of the tomato RdRP1 amino acid sequence with the Arabidopsis RdRP1 amino acid (1107 AA) sequence:
61,9% Identity and 76,7% Similarity